

## ABSTRACT OF THE DISCLOSURE

In a trap flow path, two diluents are supplied by solvent pumps that can respectively determine the flow rates independently. One of the diluents is allowed to pass through a fraction loop so as to direct a fractionated  
5 component(s) held in the fraction loop to a trap column together with a mobile phase. The other diluent is allowed to join with a flow path that has passed through the fraction loop on the downstream side of the fraction loop, and flows to the trap column while diluting the mobile phase from the flow path. In the trap column, the sample component(s) is condensed while being  
10 trapped therein.